Prevalence of Salmonella along a meat pork production system

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INTRODUCTION

In February 1999, a project called "Implementation of a *Salmonella-free* meat pork production system" started in Belgium. The first objective was to obtain a *Salmonella-free* pig production system and to maintain it. In November 1999 we begun a monitoring program on all the production chain.

This poster describes the results of this surveillance program and gives a diagnostic of this particular chain of production.

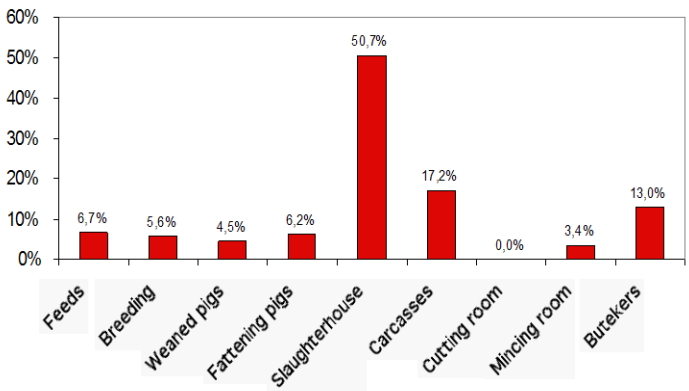
STUDY PLAN AND METHODS

Where ?	When ?	Which samples ?
Feeds	Random sampling when loading the lorry	25 g of meal
Breeding	1x / month (every farrow should be inspected)	5 faeces samples pooled in 25 g Overshoes
Weaned pigs (→ 20 kg)	Once on every batch 8 days before going out	5 faeces samples pooled in 25 g Overshoes
Fattening	Twice on every batch (after 2 months and 4 months of fattening)	5 faeces samples pooled in 25 g Overshoes
Slaughterhouse	Once on every batch	5 samples of faeal contents pooled in 25 g
Carcasses	Once on every batch	Pool of 5 surfaces swabs (5 * 600 cm^2)
Cutting room	Random sampling	25 g of retail cut
Mincing room	Random sampling	25 g of ground minced meat
Butekers	Random sampling	25 g of ground minced meat

25 g of faecal sample were analysed with the SP-VG-M002 method using Diassalm, a semi-solid enrichment media (Official method from the belgian ministry of public health)

The method of Salmonella in food samples as meal and meat was done with the AFNOR validated PCR kit Probelia ™ *Salmonella spp* (Biorad, Maasluis, NL)

RESULTS



We observe an important increase between faeces from farms and intestinal content in the slaughterhouse. It seems that the stress due to transport and fasting period have a significant effect on competitive flora which lead to a higher level of detection.

Moreover, the danger represented by Salmonella in the slaughterhouse seems to be relatively well controlled. 17,2% of the carcasses are contaminated with Salmonella when 51% of the pigs are carriers of this bacteria.

This conclusion is also true for the cutting and mincing room seeing that none samples of cutted meat and only one sample of minced meat where found positive.

Where ?	Feeds	Breeding	Weaned pigs	Fattening pigs	Slaughter house	Carcasses	Cutting room	Mincing room	Butekers
Positives	7	9	2	8	35	10	0	1	7
n	96	161	44	129	69	58	40	29	55
%	6,7%	5,6%	4,5%	6,2%	50,7%	17,2%	0%	3,4%	13%

REFERENCES

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